

***NATIONAL WEATHER SERVICE INSTRUCTION 30-2107
FEBRUARY 6, 2004***

***Maintenance, Logistics, and Facilities
Systems/Equipment Maintenance, NWSPD 30-21***

NOAA WEATHER RADIO (NWR) MAINTENANCE

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This revision addresses contract maintenance requirements; modifying the text and contents to meet regional requirements and adding specific appendices with contract language required in regional/local NOAA Weather Radio maintenance contracts.

Signed

January 23, 2004

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Date

Director, Office of Operational

Systems

NOAA Weather Radio (NWR) Maintenance

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1. Purpose. This instruction establishes specific NOAA Weather Radio (NWR) maintenance responsibilities, procedures, and reporting guidelines. It defines National Weather

Service Headquarters (WSH), regional, and field roles. This instruction also documents methods to ensure Government and contractor compliance with documented NWR equipment performance and maintenance standards/requirements.

1.1 Policy. Ensure that all NWR stations are properly managed and maintained to meet NWS operational requirements. Seek cost-effective, quality means for maintaining NWR equipment and systems to established standards and requirements through the use of National Weather Service (NWS) maintenance personnel, state/federal agencies, cooperators, national and/or local maintenance contractors. Allow for the acceptance and use of donated or loaned equipment, sites, and/or stations within the NWR network.

1.2 Federal NWR Stations. These stations are owned by the Government. The stations are maintained by NWS, Government, cooperator or contractor personnel. National and local contracts are implemented to maintain specific stations within the NWR network. Local NWS weather forecast offices (WFO) are responsible for ensuring that proper system maintenance for these stations is provided. NWR station, equipment, and broadcast coverage are routinely monitored for quality assurance.

1.3 Non-Federal NWR Stations. These stations are not owned by the Government. These stations are maintained by state agencies, cooperator or contractor personnel under separate contracts and agreements. Local NWS weather forecast offices (WFO) are responsible for ensuring that proper system maintenance for these stations is provided. NWR station, equipment, and broadcast coverage are routinely monitored for quality assurance.

2. Implementation. NWS seeks the most cost-effective means for maintenance of NWR network equipment and systems. Station maintenance may involve a mix of NWS personnel and national, state, or local service contractors. Each region implements this NWR instruction and designates NWR focal points for maintenance and contract compliance. This instruction (NWS Instruction 30-2107, *NOAA Weather Radio (NWR) Maintenance*) may be supplemented at the regional level following guidance provided in NWS Instruction 1-101, *NWS Directives System - Structure and Management*. (General maintenance guidance is provided in NWS Instructions 30-2101, *Systems Maintenance Management*.)

3. Organizational Responsibilities. The organizational roles and responsibilities for WSH, region and field personnel concerning NWR are identified in NWS Instruction 10-1711, *NOAA Weather Radio System Management*. A brief summary is included here.

3.1 Weather Service Headquarters (WSH). Overall responsibility for NWR network management, operational compliance and outreach is delegated from the NOAA Assistant Administrator (AA) for Weather Services through the Director, Office of Operational Systems (OPS) and the Director, Maintenance, Logistics, and Acquisition Division (OPS1), to the Dissemination Systems Branch (OPS17).

3.1.1 WSH Contracting Officer (CO). The WSH CO coordinates with OPS17 to develop a NWR National Maintenance Contract (NMC) to maintain selected NWR stations according to NWS standards/operational requirements (APPENDIX A). The NMC will contain a statement of work (SOW), system specification, operational requirements, and contract deliverables. The CO will work through OPS17 via a single National NWR focal point selected to be the contracting officer's technical representative (COTR), and hereinafter simply called the COTR. The CO will exercise options and/or modify the contract in accordance with COTR requirements as coordinated with the COTR.

3.1.2 National NWR Focal Point. The National NWR focal point (COTR) will coordinate all aspects of NWR inspections, testing, acceptance, and maintenance with the designated region, WFO, local, state, and cooperator NWR focal points. The National NWR focal point will also monitor NWR operational performance status of all stations not covered under the NMC.

- a. **NMC Support.** The National NWR focal point will coordinate and work directly with or through the regional and local NWR focal points to ensure NMC compliance and verify NWR operational requirements for their assigned stations are met. As additional stations are added to the network or situations arise requiring NMC intervention at previously not covered stations, the National NWR focal point will determine duration of NMC support.
- b. **Region Support.** The National NWR focal point will work with regional NWR focal points for NMC compliance, to monitor state and local maintenance contracts, and (if necessary) handle logistic requests from the field.
- c. **Field Support.** In the event that the region NWR focal point is unavailable, the National NWR focal point will provide assistance to WFO, state and local NWR focal points as necessary.
- d. **Assistant COTR (ACOTR).** At their discretion, the National NWR focal point may recommend to the CO that one or more ACOTRs from OPS be selected to assist the COTR in performing their duties. These ACOTRs have the same responsibilities and authority as delegated to the COTR and assigned by the CO. The lead ACOTR will assume the duties and responsibilities of the National COTR in their absence.

3.2 Regional Headquarters. Each region headquarter is responsible for ensuring all NWR equipment within their region is maintained according to NWR operational requirements (APPENDIX A). Each region headquarter may choose to accomplish NWR maintenance using either Government staff, the NMC, or contracts through state and/or local providers. The region headquarter will provide WSH OPS1 (via memorandum with a copy sent to OPS17) the information concerning the designated focal point(s) for the region, local NWR contract COTRs, WFOs, and non-NWS stations (station managers and any other personnel that may be designated as NWR focal points for those stations to whom service calls may be initiated on a normal and

emergency basis). The information contained in the memorandum should include the focal points' name, e-mail address, and telephone number(s).

3.2.1 NWS Staff. Government staff selected to maintain NWR stations must meet all NWS training and safety certification standards (APPENDIX B) prior to any maintenance task being assigned. They must also meet and follow all OSHA requirements. The names, e-mail addresses, and telephone numbers of the Government staff selected should also be sent by regional headquarters to OPS1 via memorandum with copy to National NWR focal point.

3.2.2 NMC Support. The regional NWR focal point coordinates with each WFO or local NWR focal point. The region NWR focal point is the link between the field and the National NWR focal point. All NMC work within the region will be coordinated with and/or through the region NWR focal point.

3.2.3 State and Local NWR Maintenance Contract Support. Specific work requirements by state and local contractors should be detailed within the contracts (APPENDIX C). One copy of each current state or local NWR maintenance contract maintained by the region (including any and all subsequent updates, changes, addendums and modifications) should be sent to the National NWR focal point (OPS17). The contract COTR(s) keeps the region NWR focal point aware of all logistics and maintenance issues. The region NWR focal point assists the responsible COTR to resolve any emergency or issue concerning NWR operation or maintenance within their region.

3.2.4 Non-NWS Owned, Operated, and Maintained NWR Station Support. This sub-section concerns NWR stations not owned, operated, or maintained by NWS, for example stations owned and operated by the U.S. Coast Guard or stations located at Nuclear Power facilities. The names, e-mail addresses, and telephone numbers of the maintenance focal points (or those directly responsible for the operation and maintenance of the NWR station) should be collected and maintained by the regional NWR focal point with a copy sent to OPS17. These non-NWS focal points must work through the regional NWR focal point for all NWR issues concerning information and assistance on operation, maintenance, testing, logistic support, etc.

3.3 Weather Forecast Office (WFO). Each WFO will have a NWR focal point. The WFO NWR focal point or other government staff (as necessary) may be designated as a contracting officer's technical monitor (COTM) to observe, assess, document and approve contractor work performance and contract compliance. COTMs also conduct NWR functional and operational tests as directed by the regional NWR focal point.

3.3.1 NMC Support. The WFO NWR focal point will coordinate NMC work as directed by the regional and National NWR focal points.

3.3.2 State or Local NWR Maintenance Support. The WFO NWR focal point will monitor as necessary state and local NWR contractors; reporting any findings and/or issues to the regional NWR focal point.

3.3.3 Non-Federal Owned, Operated, or Maintained NWR Station Support. The WFO NWR focal point will monitor non-NWS owned, operated or maintained NWR stations for Memorandum of Agreement (MOA) compliance. Random annual inspections of these stations by a local NWR focal point is expected.

4. Authority. Any Government staff as delegated by the CO has the authority to accept or reject such systems not meeting established NWR technical or operational requirements. They also have the authority within the scope of the respective national, state, or local NWR maintenance contracts to authorize corrective adjustments as required to ensure proper system operation and contractor compliance for NWR stations, systems, and equipment within their scope of responsibility.

5. Emergency Measures. When a NWR system is maintained under government contract, the contractor is responsible for routine and emergency maintenance of the equipment under the terms and conditions of the contract and any accepted/approved and signed amendments. Infringement on the scope, terms, and conditions of the agreements or maintenance contracts by Government employees is not permitted except in emergency situations and only when directed by regional or WSH management. The Government reserves the right to return equipment to operating condition when circumstances dictate. When the Government does so, it must notify the proper CO of the action(s) taken as soon as practical after the occurrence; especially if obtaining prior CO approval was determined unreasonable. When a NWR system is not maintained by the government or its contractor(s), the station owner or cooperator is responsible for routine and emergency maintenance of the equipment. Infringement by Government employees is not permitted except in emergency situations when station maintenance cannot meet operational restore time requirements. Implementation of emergency maintenance under established contracts (i.e., activation of 'emergency maintenance' contract line item numbers and provisions under the statement of work) is at the discretion of the regional and National NWR focal points/COTRs.

6. Documents. The following documents are to be maintained by the regional and National NWR focal points or by the local NWR focal points as necessary:

- EnergyOnix Transmitter Maintenance Manual
- General Electric (GE) Transmitter Maintenance Manual¹
- Scientific Radio Systems (SRS), Inc. Transmitter Maintenance Manual
- Crown Transmitter Maintenance Manual
- Armstrong Transmitter Maintenance Manual
- National Maintenance Contract (copy)
- Local Maintenance Contract(s) - copies of all (as necessary)
- List of local NWR focal points.
- NWSM 50-1115, Occupational Safety and Health
- Current Site Survey (copy)

¹ The GE Transmitter is not supported on the 2003 National Maintenance Contract.

7. Procedures. The following procedures have been provided to ensure a uniform level of maintenance for the NWR network.

7.1 WSH NWR Focal Point. The following procedures are required of the National NWR focal point and as delegated to National ACOTRs for NWR maintenance.

7.1.1 National Maintenance Contract (NMC) Oversight. Maintain contractor oversight according to current NWR directives, contract(s) and NWR statement of work. Coordinate all findings, issues, resolutions, and recommendations for modifications with OPS17 and the CO.

a. **Equipment Logistics**. Only the National NWR NMC CO or COTR may direct the National Maintenance Contractor concerning the shipment or delivery of NWR parts and spares according to the established contract. For emergency shipment(s) procedures see section 7.1.6. The following are the NMC CO or COTR responsibilities:

- (1) Upon notification from regional NWR focal point that NWR system or equipment spares are needed by WFO, contractor, or cooperator (local NWR focal point), contact the National Maintenance Contractor and provide shipment information per SOW and contract line item number (CLIN).
- (2) Verify timeliness of equipment receipt with local NWR focal point(s).

b. **Maintenance Prioritization**. The National NWR focal point may if necessary determine the prioritization of maintenance under the National Maintenance Contract (NMC) should parts or maintenance dollars become low, restricted, and/or obligated. The following are the National focal point's responsibilities:

- (1) Maintain itemization of procured equipment and services versus actual.
- (2) Use semi-annual summary status reports to forecast future use/expenditures.
- (3) Anticipate spare/logistic requirements and potential budget shortfalls.

7.1.2 Federal and State NWR Assistance. The National NWR focal point provides NWR assistance to Federal and State organizations as directed by OPS. When possible all Federal and State assistance is to be coordinated through regional NWR focal points. The following are the National focal point's responsibilities:

a. Upon notification from OPS or regional headquarters that a new federal and/or state NWR station is to be added to NMC (permanently or in the event of an

emergency), contact the National Maintenance Contractor and provide station information per SOW and CLIN. Information to be provided consists of site data sheet and equipment field test checklist.

- b. When adding another NWR station to the NMC, a logistics support shortfall is realized, the National NWR focal point should;
 - (1) Coordinate with the CO to make an addition to an active CLIN, exercise an appropriate CLIN, modify the contract, or
 - (2) If no OPS monies exist for any of the above, seek alternative funding source(s).

7.1.3 Regional NWR Coordination. The National NWR focal point holds monthly teleconferences to identify, address and resolve site, contractor, equipment, and/or cooperator issues. These issues are to be tracked and maintained in a database for semi-annual analysis. In addition to the teleconferences the National NWR focal point/COTR inspects NWR stations under the NMC as well as cooperator/local contractor maintained.

- a. **NMC NWR site inspections.** The National NWR focal point will make at least two random NMC maintained NWR station visits per year to verify established maintenance requirements are being satisfied. The following are the National focal point's responsibilities:
 - (1) Select an NWS region and schedule with regional NWR focal point site visits/inspections for at least two NWR stations covered by the NMC.
 - (2) Perform station inspection.
 - (3) Document any discrepancies, issues, including general findings and observations.
 - (4) Provide inspection summary to OPS17 upon completion.
- b. **Non-NMC NWR site inspections.** The National NWR focal point will make at least two random cooperator or local contract maintained NWR station visits per year to ensure maintenance compliance. The following are the National focal point's responsibilities:

NOTE: *These inspections should be accomplished in conjunction with those previously identified in 7.1.3.1.*

- (1) Schedule with regional NWR focal point site visits/inspections for at least two NWR stations not covered by the NMC.

- (2) Perform station inspection(s).
- (3) Document any discrepancies and/or noteworthy items, including general findings and observations.
- (4) Provide inspection summary to OPS17 upon completion.

7.1.4 WFO Assistance. In the event that the regional NWR focal point is unavailable or cannot provide a response within *two hours* of initial notification of maintenance or emergency need, the National NWR focal point/NWR COTR aids the WFO NWR representatives/focal points/electronic technicians and/or WFO management to resolve any NWR equipment and/or contract issues. Coordination of any subsequent or resulting resolution(s) is communicated through regional NWR focal point(s). The following are the National focal point's responsibilities:

- a. Contact regional headquarters management.
- b. Obtain interim NWR point of contact to keep regional headquarters apprised of actions, resolutions, and any follow-up needed.
- c. Contact WFO NWR focal point.

7.1.5 Non-NMC Monitoring. The National NWR focal point will monitor regional reports on non-NMC stations function, operation, and on-line (broadcast) status.

7.1.6 Emergency Procedures. The following emergency procedures will be followed by the National NWR focal point or OPS17 in the event of time critical action is required;

- a. **COTR unavailable.** If ACOTR(s) are designated, the lead ACOTR will assume duties and responsibilities in the absence of the COTR. If no ACOTR is identified, OPS17 will delegate duties and responsibilities as appropriate and communicate the delegation of authority to regional NWR focal points.
- b. **NMC site down.** Whenever an NWR station listed under the NMC has a failure, the maintenance contractor will be immediately notified of the station requiring maintenance. If the maintenance contractor is unable to comply implement emergency measures according to Section 5.0 of this document.
2. **Non-NMC site down.** In the event a station not covered by the NMC fails, the regional NWR focal point will be informed immediately. Any further resolution of station issues will be coordinated by the regional focal point and the National focal point as necessary.

7.1.7 Reporting. The National NWR focal point and/or National COTR report to the CO and OPS17. They will submit NWR station status and equipment reports as follows:

- a. **Monthly**. NMC Monthly Maintenance Summary Report (per SOW) and Monthly Teleconference Minutes
- b. **Quarterly**. Quarterly Regional NWR Station Inspection Report(s) to OPS17
- c. **Semi-Annually**. Regional Semi-Annual Maintenance Summary Report(s)

7.2 Regional NWR Focal Point(s). The following procedures are required of regional NWR focal points for NWR network, stations, and equipment within their region.

7.2.1 Coordinate with National NWR focal point. The regional NWR focal point will submit summary reports on all regional NWR stations concerning function, operation, and on-line (broadcast) status to the NWR National focal point. They will participate in the monthly maintenance teleconference with the National NWR focal point.

7.2.2 Coordinate with WFO NWR focal points. The regional NWR focal point will coordinate through reports, e-mails, teleconferences and visits station status, operation, issues, actions, and resolutions with WFO NWR focal points.

7.2.3 Coordinate with Federal, State and Local Cooperators. The regional NWR focal point will coordinate through reports, e-mails, teleconferences and visits station status, operation, issues, actions, and resolutions with Federal, State, and local NWR focal points as necessary to ensure system operation and maintenance compliance.

7.2.4 WFO Assistance. The regional NWR focal point will provide assistance to WFOs on all issues as they pertain to the NMC, local and/or state contracts, and cooperator maintenance.

7.2.5 Site Inspections. The regional NWR focal point randomly inspect stations within the region to ensure maintenance compliance and equipment operation. They will also require each NWS local NWR focal point to complete a specified number of inspections per quarter per year to ensure NWR network health.

7.2.6 Emergency Procedures. The following emergency procedures will be followed by the regional NWR focal point or regional headquarters in the event that time critical action is required;

- a. **Local NWR COTR or regional NWR focal point unavailable**. Regional headquarters should inform the CO and National NWR focal point providing them with information on interim designee(s).

- b. **Station broadcast down.** Where the terms and conditions of a contract are not able to be met by the contractor or cooperator in an emergency situation within the time specified, the procedure to be followed is:
 - (1) Immediately contact the local NWR focal point.
 - (2) If unable to resolve a technical problem at the local level, the regional NWR COTR/regional NWR focal point determines a course of further action to assist in resolving the problem which may also include requesting maintenance and or programmatic assistance from the National NWR focal point.
 - (3) In the event of an emergency situation and if the maintenance contractor is unable to perform needed maintenance, regional headquarter may authorize NWR regional technical personnel to perform corrective actions required to bring the NWR transmitter system back into operation. Follow-up information will be provided to regional and WSH staff after the system has been restored to operation.
- c. **Emergency Power.** Site owner or local WFO (based on local/national contract or MOA) is responsible for emergency power in the event of power failure.

7.2.7 Reporting. The regional NWR focal point report to regional headquarters and the National NWR focal point. They submit the following NWR station status and equipment reports as required.

- a. **Monthly.** NMC Monthly Maintenance Summary Report (per SOW)
Regional Monthly Maintenance Summary Report
- b. **Quarterly.** Quarterly Regional NWR Station Inspection Report(s)
- c. **Semi-Annually.** Regional Semi-Annual Maintenance Summary Report(s)

7.3 WFO NWR Focal Points. Each WFO is technically responsible for each NWR system in their County Warning Area (CWA). Individuals designated as responsible for the NWR maintenance are referred to as “local NWR focal points.” When they are required to monitor contractor maintenance performance for a local or national contract they are also considered a COTM for contractual document reporting purposes.

7.3.1 NWS and Government Staff. The WFO NWR focal points and COTMs will document and report observations and findings to the regional NWR focal point via electronic mail and enter it into national maintenance database using the electronic maintenance reporting system (EMRS). A summary of any NWR maintenance completed by Government staff must be sent to the regional NWR focal point via electronic mail and also entered into the national maintenance

database using the EMRS as identified in NWS Instructions 30-2101, *Systems Maintenance Management, Appendix G*.

7.3.2 Site Inspections. Local NWR focal points are expected to maintain their NWR contracted maintenance stations and cooperator/local maintained stations within NWR operational requirements. Periodic/routine inspections of stations to ensure operational requirements are met will be completed as directed by the regional NWR focal point. Inspections consist of sight verification and operational testing of equipment. There are two types of inspections; routine and validation.

- a. Routine inspections are those inspections determined to verify proper operation and maintenance of systems and equipment; nominally scheduled three times per year.
- b. Validation inspections generally follow upon completion of a contractor's work on the NWR system. Authority to accept or decline a contractor's work is provided in section 4 of this document.

NOTE: *There are currently no climbing requirements for any NWS personnel supporting the NWR network. However, should an emergency or critical situation occur requiring a NWS electronic technician or government employee to climb a tower to adjust, replace, or repair a NWR antenna, that employee must be properly certified prior to initiating any climbing task (see APPENDIX B). Regions are encouraged to use local, regional, or national maintenance climbing contract services prior to initiating any use of Government personnel to maintain or inspect towers.*

7.3.3 Emergency Procedures. The following emergency procedures will be followed by the local NWR focal point or WFO management in the event that time critical action is required;

- a. **Local NWR COTR or regional NWR focal point unavailable.** Regional headquarters should inform the CO and National NWR focal point and provide them with information on interim designee(s).
- b. **Station broadcast down.** Call the local/responsible WFO. Wait to hear back on problem and resolution. Where the terms and conditions of a contract are not able to be met by the contractor or cooperator in an emergency situation within the time specified, the procedure to be followed are:
 - (1) Immediately contact the NWR transmitter site contractor/cooperator to inform them of the problem and the nature of the emergency situation. The COTM (NWR focal point) will coordinate by making every effort to resolve problem through the responsible contractor/cooperator. COTMs keep the MIC and ESA informed of progress with the contractor/cooperator toward remedial action. Unscheduled Outage

System (USOS) reporting and daily status reports provided to the NWR RMS, EPM, and WFO management are necessary during extended outages.

- (2) If unable to resolve a technical problem at the local level, the COTM notifies the regional NWR COTR/regional NWR focal point.

8. Reporting.

8.1 WSH.

8.1.1 Annual Maintenance Summary Report. Taking all the regional summary reports over the last year, the National NWR focal point will consolidate the information into one summary noting any trends, observations or improvements needed.

8.1.2 Monthly Budget and Allocation Report. The National NWR COTR will prepare for OPS1 a status report of monies expended for the previous month.

8.2 Regional.

8.2.1 Monthly Maintenance Summary Report. A monthly report summarizing field NWR station maintenance will list those sites requiring other than normal or scheduled maintenance with description(s) of issue(s), solutions, and down time. All other stations will be identified numerically under headings of 'sites visited,' 'scheduled maintenance,' etc.

8.2.2 Semi-Annual Maintenance Summary Report. Twice a year a synopsis of the previous six months maintenance summary will be collated and analyzed for trends, issues or patterns.

8.3 WFO.

8.3.1 EMRS. Each COTM, local NWR focal point, and/or electronic technician providing NWR maintenance accurately document the time and nature of NWR equipment/system failures using the EMRS. An example of the EMRS NWR Maintenance Data Sheet is contained in APPENDIX D.

8.3.2 Non-Compliance. The regional COTR and/or regional NWR focal point will document any condition(s) of contractor noncompliance and submit copies to National NWR COTR and the respective contracting officers (COs).

8.3.3 USOS Reporting. The NWR representative, when an unscheduled outage occurs, submits a USOS report indicating the problem, solution and estimated time to return service.

APPENDIX A - NWR Operating Procedures

NWR operating procedures except as noted are according to manufacturers recommendations and are documented in the respective instruction manuals.

Log in to check system/station status:	(Frequency based on regional requirements and station track record.)
Identification of maintenance issue:	30 minutes
Corrective maintenance:	As needed to continue uninterrupted NWR broadcast service. If service is interrupted, corrective maintenance should be completed within four hours.
Preventative maintenance:	At least 3 times per year

APPENDIX B - NWR Maintenance Personnel Requirements

1.0 Contract Oversight

All Government personnel selected as COTRs are required to be certified in proper contract/Contractor oversight management, site inspection criteria and required documentation as appropriate (i.e., COTR Level 1).

NOTE: No certification is required or authorized for COTMs selected by the maintenance contract CO or COTR. The COTMs primary objective is to observe, witness, document and sign-off on contract tasks as detailed in local, regional, and National maintenance contracts as authorized by the CO. Any discrepancies, deviations or test failure should be brought to the attention of the COTR for immediate action.

2.0 Inspections

Government personnel that may be responsible for completing NWR station inspections include the National Maintenance Contract (NMC) COTR, National NWR focal point (if other than the National NMC COTR), regional and local NWR focal points as well as designated COTMs. Inspections (routine, random, and unscheduled) should be sufficient to ensure proper site maintenance and contractor performance. Some stations or areas may require more inspections based on operational issues, outages or equipment maintenance criteria.

3.0 Maintenance

All Government personnel performing routine preventative, corrective, or emergency maintenance on any NWR transmitter system will have appropriate technical qualifications, training, and experience to perform the required work on high power radio frequency (RF) VHF FM transmitter systems as specified in NWSM 50-1115, *Occupational Safety and Health*.² Most NWR towers are commercially owned, maintained by qualified contractors or personnel. Only in the event that all contract options have failed will Government personnel be needed for a 'physical-climb-on' tower inspection. In the unlikely event this occurs, one of the following should have current status in all requisite climbing training. Only personnel who have received the proper training will perform a 'physical-climb-on' tower inspection:

1. Electronic Technician (ET)
2. Regional Maintenance Specialist (RMS)
3. Electronics Program Manager (EPM)

² This manual may be found on the National Weather Service 'Directives' web page;
<http://www.nws.noaa.gov/directives/050/050.htm>.

APPENDIX C - NOAA NWR Local Maintenance Contract Requirements

This is an extract of the current 2003 NMC. It has been modified to allow adaptation for local contract use. See the current NMC for examples of each Attachment.

NOTE: The following sections should be included in local contracts where they apply. All referenced ATTACHMENTS identified below of included/appropriate sections are to be developed by the region as needed. Most logistic provisioning is covered under the NWR National Maintenance Contract, however there may be systems, equipment or parts (such as the General Electric transmitter) that require the appropriate sections contained herein to be addressed within the local contract.

- Attachment 1 List of All Regional NWR Stations
- Attachment 2 List of NWR Stations to be Maintained on Contract
- Attachment 3 Contractor Supplied Materials
- Attachment 4 Government Furnished Equipment (GFE)
- Attachment 5 Spare Parts List
- Attachment 6 Routine Maintenance

1. **SCOPE**

1.1 General. The National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS) operates the NOAA Weather Radio (NWR) network to provide continuous transmissions of recorded weather and appropriate all-hazards warning information to the public. An NWR system consists of an audio control console located in a Government Weather Forecast Office (WFO), a station (a transmitter system, including antenna and transmission line, located at a remote site, often collocated with and hosted by a commercial or educational TV/radio transmitter and tower), and a communication link (telephone line, microwave or UHF link) between the two locations and emergency power. This Statement of Work (SOW) pertains to the station (transmitter system) portion of the NWR network only. Systems are installed within the United States and its possessions. The NWS _____ region maintains a NWR network consisting of _____ stations. These stations are listed in Attachment 1. The list indicates the station name (city) , responsible NWS WFO, type of transmitter (single or dual), transmitter manufacturer, frequency, and station owner. This SOW requires the contractor to maintain the identified NWR sites in Attachment 2 to the technical and operational standards identified herein. Any deviation from or non-compliance with this SOW will be documented and redressed by the COTR and/or the CO. As a minimum, the Contractor provides direct field maintenance support, depot maintenance support (as required), logistics support, and other services to the transmitter systems. Depot maintenance, logistics support, and other services will be provided to the transmitter systems based on the National NWR maintenance contract.

1.2 Maintenance Services for Contractor Maintained Transmitter Systems. The Contractor provides complete maintenance services according to Section 3 for the transmitter

system sites listed in Attachment 2. These sites will be referred to as "Contractor Maintained." This list may be modified at any time during the contract period by notification in writing by the contracting officer (CO) according to the provisions for "adding a station" contained within this document.

1.3 Maintenance Support Services for Non-Contractor Maintained Transmitter

Systems. The Government, either using its own personnel or through contractual arrangements with other parties (state agency, cooperators, etc.), provides on-site maintenance for all NWR transmitter systems not listed in Attachment 2. These sites will be referred to as "Non-Contractor Maintained".

1.4 Miscellaneous Services and Support Services. The Contractor will provide, on an as-needed basis, miscellaneous services according to Section 5 for all transmitter sites Attachment 2. The Contractor also provides program support services according to Section 6 and contract transition services according to Section 7 for all transmitter sites listed in Attachment 2.

1.5 Other Contractual Arrangements. The Government reserves the right to maintain by itself, or through other contractual arrangements, individual NWR transmitter sites or groups of sites. Due to possible additions of new transmitter sites through the NWR network upgrade and expansion process, relocations of existing sites, and changes to cooperative agreements with other parties during the contract period, the Government reserves the right, with Contractor coordination, to: change, or enhance the transmitter site equipment configuration; change the number of sites and site locations listed in Attachment 2; and, change or amend technical, operational, and depot support requirements. Any changes will be coordinated through the CO and officially submitted in writing in accordance with provisions herein. Contract change administration will be carried out by the CO only. No changes in, or deviation from, the scope of work will be put into effect without a supplemental agreement executed by the CO authorizing such changes. In the event the Contractor effects any such change at the direction of any person other than the CO, the changes will be considered to be without authority and no adjustment will be made in the contract price to cover any increase in cost incurred as a result thereof.

1.6 Contract Concept. This contract is for a period of _____ months. The time frame to commence starts 30-days after contract award. No modifications or adjustments will be accepted 30-days prior to contract completion. Any letters of extension or adjustments to the established contract end-date must be made by the Government in writing no less than 30-days prior to contract completion. The Government reserves the right to cancel or adjust the contract date for a shorter period of time at any time during the contract period with 30-days written notice to the Contractor. Should the Contractor be found negligent, the Government may terminate this Contract upon Contractor receipt of verbal or written notification from the CO.

1.7 Antenna Systems and RF Transmission Lines. According to Sections 3.1, 3.2, 5.4.1, and 5.4.2, each transmitter system will be fully operational at the completion of routine or corrective maintenance, new installations, or relocations. This includes installation, repair or

replacement of antenna systems and RF transmission lines (RF coax), including related hardware and components. Although no antenna systems, coax, or related hardware are included in list of Contractor supplied materials (Attachment 3), the Government has historically maintained an appropriate stock level of these Government Furnished Equipment (GFE) located at the National NWR Maintenance Contractor's facility. Items listed in Attachment 4 are provided as GFE when required for performance of work under Sections 3.1, 3.2, 5.4.1, or 5.4.2. The Government will continue this practice of storing items as listed under "major items inventory" in the NWR NMC.

1.8 Major Items Inventory (MII). The NWR National Maintenance Contractor stores, handles and ships from their facility NWR equipment referred to as MII. These items are considered GFE (NWR program assets) that will only be released for issue by verbal or written authorization of the National NWR Contracting Officer's Technical Representative (COTR), Assistant Contracting Officer's Technical Representative (ACOTR). Regional NWR focal points, and/or designated local NWR focal point(s) must request issuance of GFE through the COTR or ACTR, as directed by the National Maintenance Contract and OPS17. These items are either expendable or repairable major subsystems for use in routine or emergency maintenance of the NWR antenna or NWR transmitter systems. As per Section 1.7, the Government will replenish these items according to Section 5.7.

1.9 Excess Inventory. The Contractor will not store or handle any surplus MII items or GFE that may be referred to as "excess inventory." These items are Government property and are for the Government's discretionary use only. All identified "excess inventory" originally sent by the NWR National Maintenance Contractor will be returned to the NWR National Maintenance Contractor facility.

2. GOVERNMENT FURNISHED EQUIPMENT (GFE). Items and equipment furnished by the Government in order to provide the services required by Section 3, 4 and 5 of this SOW are GFE. Thereafter, the Contractor maintains the spare parts (consumable) listed in Attachment 5 at the stated end-of-contract (EOC) minimum levels at Contractor expense to satisfy the requirements of Sections 3 and 4 of this SOW. Equipment manuals required to perform the services under this contract will be provided initially by the Government; subsequent requirements will be at the Contractor's expense. The Government does not guarantee the condition of GFE, but will make every effort to transfer property that is in good working order. All GFE will be transferred to the Contractor during the phase-in period (Section 7). Upon receipt of the GFE from the Government, the Contractor will: inspect and test (at its expense) the transferred Government property to its satisfaction; and, repair as necessary (with Government written approval authorizing Government expense subject to the terms and conditions of the Government Property Clause) to ensure that all items are in proper operating condition. Any claim for reimbursement resulting from test and inspection identified herein shall be made within 60 days after receipt of the GFE. The Contractor is responsible for the security of all GFE transferred to the Contractor.

3. CONTRACTOR MAINTAINED TRANSMITTER SITES. Unless otherwise specified, the Contractor will have complete responsibility for, and will bear all costs associated

with, providing all maintenance and maintenance support services for the NWR transmitter systems equipment at the locations listed in Attachment 1.

3.1 Required Maintenance Services. Maintenance services will be provided in such a manner that the availability requirements specified in Section 3.5 are met.

3.2 Warranty Maintenance and Parts Support. All new NWR transmitter equipment has a one year OEM parts warranty from the date of delivery to the transmitter site. The Government will initially provide the Contractor any appropriate warranty data on applicable transmitter sites listed in Attachment 1. The Government may require the Contractor to order the replenishment items or it may procure the needed items through its own supply channels.

3.3 Routine Maintenance. Maintenance services will be provided in such a manner that the availability requirements specified in Section 3.5 are met. The Contractor will maintain the transmitter systems through the use of Government furnished spare parts. These parts will be requested from the appropriate Government supply depot in order to affect repairs. Defective parts will be returned to the National Maintenance Contract depot unless otherwise directed.

3.3.1 On-Site Routine Maintenance. The Contractor will perform routine maintenance every 120 days, as a minimum, according to the requirements stated in Attachment 6. The Government reserves the right to periodically modify the "Maintenance Schedule." In addition, the maintenance data log attached to the transmitters must be updated and a copy of the log submitted to the local NWR focal point. Upon completion of routine maintenance, the transmitter system will be fully operational and functional at the authorized output power, within required frequency and modulation tolerance, and in compliance with all technical descriptions and specifications in NWR operational specifications and requirements, and the OEM equipment manuals.

The Contractor at some time during the visit to a site (must be reported to the forecast office) should attempt to arrange for the associated forecast office to transmit a Specific Area Message Encoding (SAME) header signal for the purpose of verifying signal level on the audio program line and resulting modulation deviation. Any change in signal level from the previous visit should be reported at the forecast office.

3.3.2 Routine Remote Monitoring. The Contractor will monitor remotely or locally the transmitters at all Contractor maintained sites on a monthly basis to verify that parameters are within specifications. Monitoring is to be done using dial in software on Crown and Armstrong transmitters and dial in ROAMS (Remote Off Air Monitoring System) on the others.

3.4 Corrective Maintenance. The Contractor will accomplish all corrective maintenance whether identified by the Contractor or requested via a service call. When corrective maintenance is required due to a service call, routine maintenance according to Section 3.3 will also be performed prior to leaving the transmitter site. Upon completion of corrective maintenance, the transmitter system will be fully tested to ensure that the system is fully

operational and functional at authorized output power, within required frequency and modulation tolerance, and in compliance with all technical descriptions and specifications of NWR operational specifications and requirements and the OEM equipment manuals. The Contractor at some time during the visit to a site should attempt to arrange for the forecast office to transmit a SAME header signal for the purpose of verifying signal level at audio program line and resulting modulation deviation. Any change in signal level from the previous visit should be reported to the forecast office.

3.4.1 Service Calls. The Contractor will provide a means to guarantee that calls for service will be answered and responded to 24 hours a day, 365 days per year.

3.5 System Availability. The NWR transmitter system operates 24 hours a day, 365 days per year. Maintenance will be provided so that no Contractor maintained transmitter system will experience site outage in excess of 88 hours per year.

3.5.1 Site Outage and Restoration. A site outage is defined as the loss of the ability to transmit broadcast-quality audio at the required output power. Site outages caused by “Acts of God” or vandalism will be corrected as soon as possible under Section 5.7 (** - **see Note**). All other site outages will be corrected so that the Mean Time to Restore (MTTR) per site will not exceed 12 consecutive hours. The maximum restoration time for any site outage will not exceed 24 consecutive hours (including nights, weekends and holidays, regardless of Contractor's normal business hours) for all corrective service calls, unless an extended period is granted by the COTR. Any extension request will be made to the COTR within 24 hours of the site outage. Outage time starts when the Contractor is notified of a problem or when an attempt is made to notify the Contractor through the specified method in Section 3.5.2 and the Contractor cannot be reached. The outage time ends when: (1) the Government is notified by the Contractor that the system is repaired and is available for use, and that broadcast-quality audio is again being transmitted at full authorized output power and the transmitting system meets all the required technical specifications of Attachment 1 and the OEM equipment manuals; and (2) the Government monitoring system, as applicable, verifies the quality of the received signal.

**** Note:** **Restoration time and cost will be coordinated with the COTR for those types of outages. Current weather conditions or forecasts for the affected site area will determine the urgency of the restoration.**

3.5.1.1 Degraded Operational Capability. A transmitter site configured with a dual transmitter is considered in a degraded operational mode if either transmitter is not capable of operating at its full authorized power. The Contractor will perform corrective maintenance on a degraded site as described in Section 3.4. The Contractor will respond to an operationally degraded site within 48 hours of notice and restore it to full operation within 72 hours. A site outage is considered an emergency and has precedence over a degraded site.

3.5.2 Notification of Outage. The Government will notify the Contractor of an outage. The Contractor will specify the method and phone number where the Contractor can be notified of an

outage. It is the responsibility of the Contractor to ensure that notification can be made per Section 3.4.1. The Contractor will obtain approval from the controlling WFO before performing any routine or corrective maintenance that would cause an outage. Upon completion of the maintenance service: (1) the controlling WFO will be notified that the transmitter is repaired, available for use, and broadcast-quality audio is again being transmitted at full authorized output power; (2) the transmitting system meets all the required technical specifications of NWR operational specifications and requirements, and the OEM equipment manuals; and, (3) the Government monitoring system, as applicable, verifies the monitored transmitter parameters are within the prescribed limits and the received signal is of good quality. The next Monthly Maintenance Activity Report will provide details to the Government, as specified in Section 6.2.2., on the reason(s) for the equipment outage and the nature of the corrective action(s) taken.

3.5.3 Service Calls. The Contractor will provide a means to guarantee that service calls will be answered and responded to at all times according to the requirements of Sections 3.4 and 3.5.

3.5.4 False Repair Calls (FRC). The Contractor may expect to receive service calls that are not directly related to a failure of the NWR transmitter system. When the Contractor responds to a service call that is subsequently classified as an FRC, the Contractor notifies the COTR or ACOTR and also notes and documents the cause and effect of the NWR transmitter outage in the Monthly Maintenance Activity Report. The cost of an FRC to the same site for the same cause and effect within a five day period will be reimbursed by the Government at cost. Historically, less than 8 percent of all service calls have been classified as an FRC in the past. However, there is no guarantee that this rate will continue.

3.6 Annual Signal Strength Measurement. The Contractor will perform annual signal strength measurements at each Contractor maintained transmitter site to ensure that overall system performance has not deteriorated. The signal strength measurements will be made at a minimum of four different land locations that are approximately 90 degrees apart and a minimum of 5 to a maximum of 20 statute miles radius from the transmitter site (the Contractor will use the same locations as used the previous year and each year thereafter for continuity). The time interval between the annual measurements will be from 9 to 13 months. The Contractor will ensure it receives previous signal strength reports from the Government for each site to show the annual signal strength measurement locations. A signal strength measurement report will be provided to the Government (COTR) within 15 days of the performed measurements. The report will detail the transmitter site data, antenna data (orientation, height, etc.), the readings (in $\mu\text{V/m}$ and $\text{dB}\mu\text{V/m}$), and approximate radial distance of each measurement from the transmitter. The measurements at all sites will be performed using calibrated [traceable to National Institute for Standards and Technology (NIST)] test equipment designed to measure RF field strength in the appropriate units and using identical measurement procedures.

3.7 Contractor Personnel Technical Requirements. All Contractor personnel performing routine and corrective maintenance on the NWR transmitter system will have appropriate technical qualifications, training, and experience to perform the required work on high power radio frequency (RF) VHF FM transmitter systems. These qualifications will be met by

appropriate schooling in electronics and associated theory, and specific training and/or schooling in job related experience in the maintenance of related type transmitter equipment. The Contractor will notify the Government in writing of any change of technical field personnel along with their technical qualifications, training and related experience.

3.8 Contractor Performance Monitoring. The Government reserves the right to monitor the routine and corrective maintenance performance of the Contractor at any NWR transmitter site listed in Attachment 1. The monitoring will be performed by NWS personnel. The factors the Government will monitor are all Contractor performance requirements specified in Sections 3 through 3.7.

3.9 Maintenance Support Services. The Contractor will provide logistics support and replenishment services as identified in Section 4.

3.10 Other Maintenance Support Services. The Contractor will provide maintenance and logistics support of the ROAMS if installed at transmitter sites listed in Attachment 1. Maintenance will involve defective whole unit replacement. Logistic support will be whole unit shipment to and from the field with whole unit replacement provided by the Government from major items inventory. The Government will bear all costs associated with shipping these units.

4. NON-CONTRACTOR MAINTAINED TRANSMITTER SYSTEM MAINTENANCE SUPPORT SERVICES AND REQUIREMENTS. The Contractor will provide the following maintenance support services.

4.1 Logistics Support. Requests will be either on a routine or emergency basis.

4.1.1 Response to Routine Requests. A request for logistics support is considered routine if the requirement is for a site operating in a degraded mode (as defined in Section 3.5.1.1). The Contractor will respond to routine requests for logistics support and will ship all items within 72 consecutive hours (including nights, weekends and holidays regardless of Contractor's normal business hours) of initial request. Shipment of the required parts will be FOB destination.

4.1.2 Response to Emergency Requests. A request for logistics support is considered an emergency if a site has experienced an outage as defined in Section 3.5.1. The Contractor will respond to emergency requests for logistics support and will ship all items within 24 consecutive hours (including nights, weekends and holidays regardless of Contractor's normal business hours) of initial request. Shipment of the required parts will be by overnight services, where available. If overnight services are not available to a specific location, the Contractor will employ the best means available. In either case, shipment will be FOB destination.

4.2 Repair and Technical Consulting Services. Not applicable.

4.3 Logistics Replenishment. Not applicable.

4.4 Contractor Performance Monitoring. The Government reserves the right to monitor the maintenance support service performance of the Contractor provided to any NWR transmitter site listed in Attachment 1. The monitoring will be performed by Government personnel. The factors the Government will monitor are all Contractor performance requirements specified in Sections 4 through 4.3.

4.5 Logistic Support for Other Sites. The Contractor will provide and maintain a warehouse facility for receiving requests from, and supplying logistics support for parts and assemblies to Non-Contractor maintained sites. These parts and assemblies will be provided by the Government on an as needed basis from Government furnished parts (GFP). Based on possible additional requirements, this list should not be considered all inclusive.

4.5.1 Warranty Maintenance and Parts Support for non-SRS Transmitter Systems. All new transmitters identified in Attachment 2 have one year OEM parts warranty from the date of delivery to the transmitter site. The Government will initially provide the Contractor any appropriate warranty data on applicable transmitter sites listed in Attachment 2. The Contractor will then be responsible for all warranty parts tracking. The Contractor will ensure that any defective parts and assemblies are repaired or replaced by the OEM. All warranty activity will be reported in the monthly maintenance and status reports (Section 6).

4.5.2 Parts Support for non-SRS Transmitter Systems Beyond Warranty Period. The Government will provide replacement or repair parts from GFP and MII for the non-SRS transmitter and transmitter system equipment listed in Attachment 2. The Government will replenish these GFP inventories on an as needed basis. The Government will bear all costs associated with shipping these parts and assemblies to the field via procedures established under Section 5, Miscellaneous Services. The Contractor will require the return of, and provide storage for, all defective assemblies replaced on a logistic support request.

4.5.3 Response To Routine Requests. The Contractor will notify the COTR or ACOTR of routine requests for logistics support from transmitter sites, by the next business day. The COTR or ACOTR will instruct the Contractor on the disposition of the logistic support request.

4.5.4 Response to Emergency Requests. The Contractor will notify the COTR or ACOTR of emergency requests for logistics support from transmitter sites, on the same business day. The COTR or ACOTR will instruct the Contractor on the disposition of the emergency logistic support request.

4.5.5 Technical Consulting Services. The Contractor will provide expert technical consulting services relating to the transmitter systems. This includes resolution of all technical questions on the transmitter system equipment and the major transmitter assemblies, respectively.

4.5.6 Logistics Replenishment. All logistics items, whether expendable, assemblies, or assemblies needing repair, will be stored at the Contractor facility. The disposition of repairable assemblies will be directed by the Government. The Contractor may be directed by the

Government to repair some assemblies from non-SRS transmitters to the extent the Contractor has the means. These repairs will be tasked according to section 5. Replenishment costs of expendable parts, and repairable assemblies will be borne by the Government.

4.5.7 Stock Level Reporting. The Contractor will report the stock levels of these items in the Monthly Status Report (Section 6.2.1) of the MII. The report will also include the quantity and types of assemblies.

5. MISCELLANEOUS SERVICES. The Contractor will provide, on an as-needed basis, the miscellaneous services described in the following paragraphs which may be ordered periodically by the Government. These services will incorporate the technical work directives of the Government and will be based on the Contractor's proposals provided in response to Government requests for specific services when work is performed on a FFP basis. Regarding limits of services under this arrangement, the Government will not be required to place any orders for such services, but will have the right to place orders which may include a cumulative yearly estimated quantity of 8,320 service hours. This maximum level will not be interpreted as setting a level of obligation for ordering or use on the part of the Government, but will serve as a yearly ceiling for ordering. Miscellaneous services are comprised of both emergency and non-emergency services.

5.1 Emergency Services. The Contractor will respond to verbal requests by the COTR or ACOTR to provide emergency work associated with Contractor maintained or Non-contractor maintained NWR transmitter sites. Emergency work is that which is required to restore a NWR transmitter system to full operational status, due to the criticality and time-sensitive nature of the NWR transmitter network and program. Such work may include, but not be limited to, antenna system repair/replacement, transmitter system repair, refurbishment or replacement, or any service(s) specified within Section 5 and classified as an "emergency" by the COTR or ACOTR. The COTR or ACOTR will be authorized to place calls against Task Orders set up for Emergency Services valued up to \$5,000 per event. More extensive work for emergency service will be authorized only by a Contracting Officer. The Contractor will undertake these services as specified in the Section "H" contract clause Procedures for Placing Task Orders - Miscellaneous Services.

5.2 Non-Emergency Services. The Contractor will respond with a written technical and cost proposal for the performance of non-emergency services within thirty (30) days following the Government issuance of each request for a Task Order proposal. The Contractor will keep the Government informed promptly of any delays in submission beyond the thirty (30) day response period. The Contractor will undertake these services as specified in the Section "H" contract clause Procedures for Placing Task Orders - Miscellaneous Services.

5.3 Site Surveys. Upon issuance of a Task Order, the Contractor will be responsible for performing and documenting detailed technical surveys of identified transmitter facilities within a service area to determine the suitability for installing a NWR transmitter system. A written survey report will be submitted to the COTR within thirty (30) days after issuance of an order for

each full survey performed. A service area is defined as the geographic area in which an 8.0 micro volt per meter (18 dB μ V/m) signal strength (or greater) is present at a distance of 40 statute miles on eight radials over land (N, NE, E, SE, S, SW, W and NW) from the NWR antenna site.

5.3.1 Full Survey. Upon issuance of a Task Order, the Contractor will perform a full survey for determining location of prospective sites which will meet the requirements of a service area (as defined in Section 5.3) and provide detailed technical survey information on the building for the transmitter equipment and tower facilities for the antenna system at these sites. A written survey report will be submitted to the COTR within thirty (30) days after issuance of an order for each full survey performed. The Government will make the final selection of a tower facility within a designated service area upon receipt of the written full survey report(s).

5.3.2 Mini Survey. Upon issuance of a Task Order, the Contractor will perform a mini survey on a specific tower facility designated by the Government that is within a given service area (as defined in Section 5.3) for the purpose of gathering the necessary technical information for an installation or relocation of a transmitter system. A written survey report will be submitted to the COTR within thirty (30) days after issuance of an order for each mini survey performed.

5.4 Site Installations and Relocations. Upon issuance of a Task Order, the Contractor will be responsible for the installation of a new NWR transmitter system, the relocation of an existing system, or deactivation of an existing system.

5.4.1 New Site Installations. Upon issuance of a Task Order, the Contractor will complete or support the completion of new site installations as per Sections 5.4.1.1 and 5.4.1.2.

5.4.1.1 Contractor Installations. The Contractor will not begin any installation work on a transmitter system until notified by the Government that a contract for the use of the tower and building facility has been signed, and the Contractor has received an "Authorization to Implement" notification from the Government. The Contractor will have full responsibility for installation of the transmitter system at the tower and building facility and will, within thirty (30) days of equipment availability, provide all material, facilities and services required to make the system fully operational such as antenna and coaxial cable mounting, cabling, connectors, isolators (if required), audio lines within the station facility, transmitter venting, or air conditioning (if required), lightning protection circuitry, emergency power systems and all power and cable connections between the station power panels and the transmitters. The Contractor will be responsible for obtaining all necessary clearances for personnel and material access to the site. The Government reserves the right to inspect and approve any and all work performed by the Contractor on a new site installation.

5.4.1.2 Non-Contractor Installations. The Government reserves the right to install transmitters using other than services by the Contractor. These sites will generally be installed by the OEM. Upon issuance of a Task Order, the Contractor will assist in the installation of a transmitter system by someone other than the Contractor. The Contractor will also receive up to 8 hours of

training on the new equipment if identified in the Task Order. The Contractor will monitor the installation process and resulting operation of the equipment including RF interference and purity of RF frequency spectrum. Any deviations from best commercial practices and/or deviations from proper operation as defined in the technical specifications and the OEM manuals, will be reported to the COTR or ACOTR as soon as possible.

5.4.2 Site Relocation. Upon issuance of a Task Order, the Contractor will be responsible for the relocation of an existing NWR transmitter system to a new location within thirty (30) days of receipt of the Task Order. The Government may request such assistance as help in selecting a new site within the existing service area, and a full and/or mini survey as outlined in Section 5.3. The requirements of Section 5.4.1 also apply to site relocations. In addition, the Government may request assistance in removing a transmitter system from an existing site and shipping it to a new location.

5.4.3 Radiation/Intermodulation Interference. During the course of site installations and relocations, the Contractor will take the necessary precautions to eliminate radiation interference to a NWR transmitter system from other transmitting equipment and to eliminate any radiation emanating from the NWR transmitter system that may interfere with the normal services of other communications and broadcast systems, devices, services, or facilities within or outside the United States. Radiation interference problems arising after installation of a Contractor-maintained NWR transmitter system will be corrected by the Contractor at the Contractor's expense, where it has been proven that the transmitter system is not performing according to specifications. In all other cases, interference problems will be the Government's responsibility and corrected under Section 5.7.

5.5 Modifications. The Contractor will have the capability to design and accomplish modifications to the NWR transmitter system according to instructions and requirements issued by the Government.

NOTE: Not all transmitter locations have lightning protection systems installed. The Contractor will provide the Government, a list of all Contractor maintained transmitter sites that do not have antenna, AC power, or phone line lightning protection equipment or devices properly installed on the transmitter system.

5.6 Technician Training. The Contractor may be required by the Government, by issuance of a Task Order, to provide at its facility, or at a Government designated site, training for electronics technicians in the theory and maintenance of the transmitter systems.

5.7 Other Services. In addition to the services outlined above, the Government may issue a Task Order for the Contractor to provide such other support services as: transmitter venting; installation of lightning protection kits; assistance in the resolution of radiation/intermodulation interference problems (as defined in Section 5.4.3); construction of transmitter shelters; ordering and stocking of antenna system components; repairs caused by "Acts of God" and vandalism;

replacement of assemblies, repairable and non-repairable, not returned from Non-Contractor-maintained sites, and any other services needed of a similar nature to support the NWR transmitter systems. Other services may include the upgrading of transmitters and GFP and the purchase of substitute property by the Contractor for the Government under this contract, or periodic maintenance of emergency power systems.

6. PROGRAM SUPPORT. The Contractor will provide the following NWR national transmitter maintenance support functions and required monthly reports.

6.1 Support Functions. The Contractor will provide the following functions in support of the NWR National maintenance program.

6.1.1 Program Management. A program management position will be established for the purpose of coordination and quality control of the performance under the NWR transmitter maintenance and support contract. This position will be the focal point between the NWR Program Office and COTR, and the Contractor.

6.1.2 Logistics Contact. The Contractor will provide a point of contact for ordering logistics items for Non-Contractor-maintained transmitter sites.

As a provision in any state or local NWR maintenance contracts initiated by NWS regional representatives, all state and local contractors must request maintenance logistic parts, spares, equipment, systems, and assistance through the contract COTR. The contract COTR must then coordinate with the respective regional NWR focal point.

Non-Federal maintenance staff should coordinate all logistics (if needed) through local NWR focal point.

6.1.3 Test Equipment Maintenance. The Government furnished test equipment will be maintained and kept in current calibration at Contractor expense. The calibration period will be as noted in the equipment manuals. The test equipment calibration will be performed by the equipment manufacturer or by a calibration laboratory approved by the Government. The special test equipment manufactured by Scientific Radio Systems, Inc. (SR Systems) will be calibrated by the Contractor according to the procedures in the equipment manuals or by Contractor prepared procedures approved by the Government. If any Contractor-owned test equipment is used in the performance of this contract, it will be maintained and kept in current calibration at Contractor expense according to manufacturer's recommendations and traceable to the NIST.

6.1.4 Computer Support. The computer systems will be maintained and kept in good repair at Contractor expense. All programming, report generators, software, data bases, etc. generated to fulfill the documentation requirements of Section 6.2 or any other requirement in this SOW will be accomplished at Contractor expense. Once generated, this software and all other related programming documentation will become the property of the Government. The Contractor will

provide automated data processing (ADP) dial-in capability and access to authorized Government personnel to the GFP NWR inventory management database. The Contractor will provide ADP system security to limit access to authorized Contractor personnel only. The Government will provide a list of authorized Government personnel to the Contractor.

6.2 Monthly Reports. The Contractor will provide the following monthly reports by the 15th of each month to the COTR, and other designated parties. The address of the COTR is:

(Place Regional Headquarter address here.)

6.2.1 Status Report. The Contractor will provide a report describing all significant actions under the contract, any outstanding items requiring action by the Government, and unresolved problems of importance to the Government. An on-going summary of all significant actions performed under the contract including miscellaneous services, MII shipments, and actions in response to contract modifications and other authorizing documents will be updated each month and provided as part of this report. Each report will contain a column listing the cumulative usage rate of each transmitter part and assembly used. Each miscellaneous service or other authorizing document will be a major topic heading with all actions performed under that heading listed as sub-topics under the major topic heading. The sub-topics will be grouped together into like items and summarized at the end of the report with full cross references to the major topic headings and sub-topics. The reports may be submitted to the COTR on 3½ inch, 1.44 Mbyte floppy disks utilizing WordPerfect 5.1 (or later version) word processing or dBASE III+ (or later version) database management application software. The Contractor will maintain an archived floppy disk backup copy of each status report submitted. A hard copy printout of the status report will be submitted to the Contracting Officer (and also to the COTR at above address) at the following address:

(Place Regional Headquarter contract specialist address here.)

6.2.2 Maintenance Activity Reports. The Contractor will provide reports containing a summary of maintenance activities on Contractor-maintained transmitter systems. These reports will be summarized by station and state with all activities reported for each station.

The information for all stations in each state and NWS region will be combined into a single report for the total Contractor-maintained program. This report will be provided to the COTR. These reports will include the following information: reliability summary, Mean Time Between Failures (MTBF) summary (MTBF will be calculated over the most recent 3 year period), Mean-Time-To-Repair (MTTR) summary, maintenance activity summary, repair call time summary, false repair call summary, non-transmitter related outage hours, transmitter related outage hours, maintenance call type analysis, maintenance action cause analysis, reported/unreported transmitter repairs summary, and monthly maintenance action documentation to include site data, transmitter maintenance data log and maintenance comments. The maintenance reports for all regions may be submitted to the COTR on 3½ inch, 1.44 Mbyte floppy disks utilizing WordPerfect 5.1 (or later version) word processing or dBASE III+ (or later

version) database management application software. The Contractor will maintain an archived floppy disk backup copy of each maintenance report submitted to the COTR.

6.2.3 Logistics Activity Database. The Contractor will maintain, utilizing GFP dBASE III+ (or later version) application software and the GFP customized software by SBT, a database of all logistics activity, updated weekly, containing a list of all transmitter system spare parts and repairable assemblies requested for all Contractor and Non-Contractor maintained transmitter systems. The database will contain as a minimum: transmitter site identification (SID), transmitter serial number, transmitter site location, part number, part description, quantity requested, date of request, initial stock quantity, replenishment quantity, returned to stock quantity, current balance, total quantity used to date, and applicable Contractor document control number(s). The Contractor will provide dial-up access into the database via the GFP x-86 computer/LAN file server. That access will be in the "read only" mode to authorized Government individuals. The Government may at times request the Contractor to furnish a report from the database information. That report may be requested at the Government's option, to be submitted to the COTR on 3½ inch, 1.44 Mbyte floppy disks utilizing WordPerfect 5.1 (or later version) and/or dBASE III+ (or later version) application software and/or hard copy printout of up to 12 times per year.

6.2.4 Contractor Maintained NWR Transmitter Site Data Report. The Contractor will provide a report, within 90 days after contract award, containing current, up-to-date site data of NWR transmitters maintained by the Contractor. That report will be submitted to the COTR on 3½ inch, 1.44 Mbyte floppy disks utilizing WordPerfect 5.1 (or later version) and/or dBASE III+ (or later version) application software as well as one hard copy printout. That report will be updated and sent to the COTR when any data for a NWR Transmitter site has changed. The Government will initially provide known NWR transmitter site data to the Contractor on those sites the Contractor is responsible for maintenance. A sample of an NWR transmitter site data sheet will be provided. The Contractor will not assume this data to be complete or correct. The site data report will contain, as a minimum, all information fields for each NWR transmitter site for which the Contractor has maintenance responsibility.

6.2.5 Cost Report. The Contractor will provide a monthly cost report that apportions all invoiced costs to individual NWR stations maintained under the contract. This report may be separate or combined with other reports, as long as a per station cost can be extracted electronically from the report.

7. Contractor Transition Services. The Contractor will perform the following Phase-In and Phase-Out services as required.

7.1 Contractor Phase-In Services. During the 6-week Phase-In period, the Contractor will provide the services required in Section 7.1.1 through 7.1.6 inclusive. During this time period, since the incumbent Contractor will be providing the services required in Section 3, 4, 5, 6 and services similar to Section 7.2 of this SOW, the Contractor will provide the services required in Sections 7.1.1 through 7.1.6 inclusive in a manner that does not interfere with the contract

performance of the incumbent Contractor. The Contractor will take over full responsibility for the services required in Sections 3, 4, 5 and 6 of this SOW at midnight (Eastern time) the last day of the Phase-In period. The Contractor will be responsible for all shipping and insurance costs FOB origin (incumbent's facility) associated with the transfer of all GFP. The Contractor will perform a complete inventory and inspection of all incoming GFP within 60 days after the receipt of each item. If the GFP is received by the Contractor in a condition not suitable for its intended use, the Contractor will notify the Contracting Officer within 60 days. Any such claim for reimbursement by the Government must be made within this time period. Failure to notify the CO, in writing, within this time period will result in an automatic waiver of the Contractor's right to reimbursement.

7.1.1 Spare Parts and Assemblies. The Contractor will receive the Government owned spare parts and assemblies from the Government or as directed from the National Maintenance Contractor.

7.1.2 Maintenance Van Test Equipment and Transmitter/Antenna Systems. The Contractor will receive as GFP, test equipment and transmitter/antenna systems from the National Maintenance Contractor. After receipt of the subject test equipment and transmitter/antenna systems, the Contractor will perform a complete inventory and report any discrepancies to the Government in writing.

7.1.3 Depot Maintenance Equipment. The Contractor will receive as GFP the Government owned test equipment and the transmitter system. After receipt of the maintenance equipment, the Contractor will perform a complete inventory of the incoming equipment and report any discrepancies to the Government in writing.

7.1.4 ADP Systems. The Contractor will receive from the Government as indicated herein or via approved modifications to the contract ADP hardware, software, documentation and databases.

7.1.5 Indoctrination of Contractor. The Contractor will inspect transmitter locations listed in Attachment 2 accompanied by a Government representative or by the incumbent Contractor, for indoctrination purposes. The Contractor will ensure that they receive and understand any site access procedures, on site equipment and maintenance logs, filing systems, and status of any current on-going projects. The Contractor will accept all required keys, lock combinations, parking permits, etc. required for site access from the Government or its designated representative.

7.1.6 Technical Capability. Should the Contractor's maintenance personnel require additional specialized training, it will be at Contractor's expense.

7.2 Contractor Phase-Out Services. The Government may exercise an option for a three (3) month Phase-Out period. If the Phase-Out Option is exercised, the Contractor will perform

all requirements outlined in Sections 3, 4, 5, and 6, plus the events listed in Sections 7.2.1, 7.2.2, and 7.2.3 below during the Phase-Out period.

7.2.1 Government Furnished Property (GFP). All GFP delivered at the onset of the contract will be inventoried and replenished to initial quantities at Contractor expense. Any discrepancies noted by the Government will be resolved by the Contractor. All Government property delivered at the onset of the contract will be inventoried. This Government property will then be appropriately packed for shipment to the successor Contractor. Each line item part will be individually packed and labeled with quantity, part number, and nomenclature. These in turn may be placed and appropriately packed in larger containers suitable for freight shipment at the incumbent Contractor's expense. Each container will have an inventory list specifying its contents by part number and nomenclature. The Contractor will provide to the Government a signed copy of all inventory lists specifying what items were turned over to the successor Contractor.

7.2.2 Test Equipment Calibration. Test equipment requiring calibration, plus any new test equipment procured during the contract by the Government will be repaired if necessary and calibrated, if not in current calibration prior to turning over to the Government, at Contractor's expense. Any test equipment, procured and used by the Contractor in satisfying the requirements of the contract, will be maintained in good repair and calibration at the Contractor's expense. Test equipment not requiring calibration will be checked for proper operation and repaired if necessary at Contractor's expense.

7.2.3 Checkout & Indoctrination. The Contractor will accompany a Government representative and the successor Contractor, if any, on site inspection trips, go over any procedures required for access, introduce (where appropriate) the site owner, turn over any keys, lock combinations, parking permits, etc, explain any site peculiarities, site access procedures, turn over files and equipment maintenance logs, explain filing system, etc, and provide the status of on-going or current projects and activities. Local area maps showing the signal strength measurement locations for each Contractor-maintained transmitter site will be provided to the Government representative. The Contractor will complete all other items necessary for checkout completion to the satisfaction of the Government.

8. TEST PROCEDURES AND TEST FIXTURES.

8.1 Test Procedures. The Contractor will develop test procedures and perform post-repair testing of the spare assemblies and the transmitter systems according to the Contractor's proposed test procedures. The Contractor's test procedures will be maintained at the Contractor's facility and be made available for Government inspection.

NOTE: Equipment drawings and test procedures (other than those contained in the equipment manuals) are not available to the Government for transfer to the Contractor.

8.2 Test Fixtures. The Contractor will provide any test fixtures required to perform the test procedures in Section 8.1.

APPENDIX D - NOAA Weather Radio (NWR) Maintenance Data Sheet (Sample EMRS Report)

This is a sample electronic page from the Engineering Management Reporting System (EMRS) software. It replaces the paper document WS Form A-26. Additional information is contained in NDS Instruction 30-2104, *Maintenance Data Documentation*.

A26 Detail Form - ESCM2, SILVER SPRING, MD :: EMRS ANALYST - Microsoft Internet Explorer

New A26 Commit A26 Place on Hold Cgpy A26 Delete A26 Detail Report Preference Document Summary Help

GENERAL INFORMATION

NEW RECORD WFO* [] Document No.* ESCM230408000

1. Open Date Open Time 2. Op Initials 3. Response Priority 4. Close Date Close Time

☐ Immediate ☐ Low
☒ Routine ☐ Not Applicable

5. Maintenance Description 500 characters left

EQUIPMENT INFORMATION

6. Station ID* 7. Equipment Code 8. Serial Number 9. TM 10. AT 11. How Mal

[] [] [] [] [] []

Alert: **Time Remaining:**
(For Block 12 use only)

14. WORKLOAD INFORMATION

a. Routine		b. Non-Routine		c. Travel		d. Misc		e. Overtime	
Hours	Minutes	Hours	Minutes	Hours	Minutes	Hours	Minutes	Hours	Minutes
[]	[]	[]	[]	[]	[]	[]	[]	[]	[]

MISCELLANEOUS INFORMATION

15. Maintenance Comments 750 characters left

16. Tech Initials []

17. SPECIAL PURPOSE REPORTING INFORMATION

a. Mod No.	b. Mod Act/Deact Date	c. Block C	d. Trouble Ticket No.	e. Block E
[]	[]	[]	[]	[]

Commit A26 Place on Hold Cgpy A26 New A26 Cancel

Done Internet